

Chapter 8.12 - WATER WELLS

Sections:

Article I. - General Provisions

8.12.010 - Purpose.

The city of Merced relies on ground water as its sole source for public drinking water. Protection of the quality of ground water is essential to ensure future prosperity and health. The purpose of this chapter is to provide standards for location, construction, maintenance, rehabilitation, sealing, abandonment and destruction of all wells, test wells and certain exploration holes so the quality of the ground water is not polluted, contaminated or otherwise impacted in a manner which will jeopardize the health, safety or welfare of the citizens of the city. The intent of these standards is to prevent mixing or transfer of degraded waters into aquifers of good quality water through wells or open borings. These standards are written to address the specific hydrogeologic conditions of the city.

(Ord. 1754 § 1, 1990: prior code § 29.1).

8.12.020 - Applicability.

The standards set forth in this chapter apply to all new and existing water wells, monitoring wells, cathodic protection wells, test wells and those exploratory holes deeper than twenty feet within the jurisdictional boundaries of the city.

(Ord. 1754 § 1, 1990: prior code § 29.2).

8.12.030 - Special ground water protection.

The city is underlain by various geologic units which consist of unconsolidated and consolidated sediments that contain permeable layers, or aquifers, of varying depth and dimension intermixed with low permeability sediments. The city's water supply relies on the production of ground water from three aquifer zones which are separated by low permeability layers. These three aquifers are called the "shallow", "intermediate" and "Mehrtens." Layers of lower permeability are common, but three distinctive and generally continuous layers are known. These low permeability layers are called the "shallow confining layer", the "Corcoran Clay" and the "300-foot clay." Deeper aquifers of good quality water may also exist and must be protected.

Recent pollution and contamination by organic chemicals has been found in the shallow and intermediate aquifers. Because it has been determined that ground water problems are known to exist, all ground water within the city's sphere of influence is hereby designated, pursuant to authority granted under the State of California Water Code, Section 13801, as requiring "Special Ground Water Protection." The intent of this chapter is to minimize the impacts and prevent the migration of harmful chemicals into aquifers used by the city.

(Ord. 1754 § 1, 1990: prior code § 29.3).

8.12.040 - Implementation standards.

- A. Implementation, performance of inspections, and enforcement of compliance with this chapter shall be the responsibility of the director or his assignee.
- B. Within five years from the effective date of the ordinance codified in this chapter, the owner, operator or permittee of an existing private well within the city must destroy any existing well in accordance with this chapter.
- C. All persons owning an abandoned well within the city shall destroy the well before December 31, 1991.
- D. The director may require, at any time, the destruction of a private well which causes or threatens to cause the spread of pollution or which adversely impacts the quality of ground water.
- E. The director may implement the destruction of any well which causes or threatens to cause the spread of pollution, if the owner, operator or permittee of such well has not destroyed the well within ninety (90) days of receipt of a written notice requiring the destruction of the well. Costs incurred by the city to destroy a private well shall be the responsibility of the well's owners, operators and permittees.
- F. The director or his designee shall have the right to enter upon any premises at all reasonable times to make inspections and tests for the purpose of enforcement and administration of this chapter.
- G. Drilling or construction of a new private well or rehabilitation of an existing or abandoned well within the city is not permitted. New exploratory holes, cathodic protection wells, monitoring wells and contaminant extraction wells are permitted, provided all provisions of this chapter are followed, a well permit form is filed with the department of public works and approved by the director, and required fees are paid.

(Ord. 2285 § 1, 2007; Ord. 1754 § 1, 1990; prior code § 29.4).

8.12.050 - Exemptions.

- A. If compliance with any of the requirements prescribed in this chapter is impractical for a particular location because of unusual conditions, or if compliance would result in construction of an unsatisfactory well, then the director may, upon written request from the well owner or permittee, waive compliance and prescribe alternative requirements which are "equal to" these standards in protection of ground water quality. Specific conditions or exemptions will be described as a variance on the permit.
- B. The construction, maintenance, rehabilitation, modification, and destruction of monitoring wells may be performed under the statutory and regulatory requirements of the California Regional Water Quality Control Board, the State Department of Health Services, the Merced County Department of Health, or the U.S. Environmental Protection Agency. If, on a specific site, provisions in this ordinance are in conflict with well standards prescribed by these other agencies, then the director may, upon written request from the well owner or permittee, waive compliance provided the other agency's well standards provide equal or greater protection of ground water quality.
- C. The requirement of subsection B of Section 8.12.040 that existing private wells be destroyed, may be waived by the city upon a determination by the director of public works operations that:
 - 1. The well has value for the treatment and/or monitoring of chemical or other contamination of ground water, and
 - 2. The well is constructed and will be operated in a manner which will avoid further contamination of ground water; and
 - 3. The city is allowed unimpeded access to the well pursuant to Section 8.12.040(F).
- D. A waiver granted pursuant to subsection C above shall terminate upon written notice to the well owner by the director of public works operations that one or more of the above conditions no longer exists. In such event the well owner shall destroy the well within ninety (90) days of receipt of the notice. If the well has not been destroyed within said ninety (90) days, the director of public works operations may destroy the well. Costs incurred by the city to destroy the well shall be the responsibility of the well's owners, operators and permittees.

(Ord. 1863 § 1, 1993; Ord. 1754 § 1, 1990).

8.12.060 - Exclusions.

- A. The construction standards prescribed in Section 8.12.320 do not apply to shallow exploration borings or test wells unless one or more of the following occurs:
 - 1. Ground water is encountered;
 - 2. The shallow clay layer or the Corcoran Clay is penetrated; or
 - 3. Pollution or contamination of the soil or ground water is known or suspected at the site of drilling.
- B. All other sections of this chapter, including the reporting and destruction provision of Sections 8.12.080 and 8.12.330 shall apply to all wells, test wells and those exploratory borings of a depth greater than twenty feet.

(Ord. 1754 § 1, 1990).

8.12.070 - Well drillers.

The construction, rehabilitation, modification, or destruction of all wells shall be performed by contractors with a valid C-57 license in accordance with the provisions of the Contractors' License Law (Chapter 9 of Division 3 of the California Business and Professions Code) unless exempted by that act. Nothing in this chapter shall preclude a resident or owner from doing his own work provided such work is performed under the direct and continuous supervision of a person licensed as specified above.

(Ord. 1754 § 1, 1990).

8.12.080 - Report of activity.

- A. Reports concerning the location, construction, sealing, rehabilitation, modification, or destruction of all wells shall be filed with the city department of public works, county of Merced department of health, and the California department of water resources in accordance with the provisions of Sections 13750 through 13754 (Division 7, Chapter 10, Article 3) of the California Water Code.
- B. Within thirty days after completion of work authorized by a permit, a copy of the state "Water Well Drillers Report" shall be filed with the city department of public works and the county of Merced department of health.
- C. Authorization for drilling in the course of contamination investigations shall be contingent upon submission of work plans, investigative reports, and/or remedial action plans as determined by the director to be necessary for the evaluation of potential impacts to the city's water supply.

(Ord. 1863 § 2, 1993; Ord. 1754 § 1, 1990).

8.12.090 - Transfer of monitoring wells.

- A. Notwithstanding any other provision of this chapter, if the director determines an application to close a well involves a well containing evidence of contamination or otherwise constituting a threat to the city's water supply or public health, the director may either (1) require the well be kept open for monitoring until such time as the director determines the contamination is cleaned up or the well is no longer a threat to the city's water supply or public health; or (2) allow the owner of the well to transfer the well to city subject to B.
- B. Any agreement for transfer of a well to the city shall provide for indemnification of the city for environmental hazards, payment of costs of evaluation of the well for transfer, and reimbursement of the director's estimated closure expenses.

(Ord. 2017 § 1, 1999).

Article II. - Definitions

8.12.100 - Definitions.

Definitions of terms shall be as set forth in: (1) Chapter II and Appendix A of the Department of Water Resources (DWR) Bulletin 74-81 as revised in 1988 (or the latest revision); (2) Chapter II and Appendix A of Department of Water Resource Bulletin 74-88; (3) Chapter II and Appendix A of Department of Water Resources Bulletin 74-1 as revised in 1988 (or the latest revision); (4) Section 2 of the county of Merced Ordinance No. 752; and (5) as set forth below:

- A. "Abatement" means the reconstruction, repair or destruction of a well, test well, or exploratory hole so as to eliminate a public nuisance.
- B. "City" shall mean the city of Merced.
- C. "Exploratory hole" shall mean a temporary artificial excavation, hole or opening created by any means for the purpose of identifying or collecting information on the nature of the subsurface but which is greater than twenty feet for the purposes of this chapter.
- D. "Inspector" shall mean a person designated by the director and authorized to ensure that the provisions of this chapter are enforced.
- E. "Permittee" shall mean any person, association, firm, corporation, special district or public agency.
- F. "Public nuisance" shall mean any well or condition that impairs or threatens to impair the quality of ground water or otherwise jeopardize the health or safety of the public.
- G. "Test hold or well" shall mean a well drained for the purpose of obtaining information needed to design a well. A test well may be cased and can be converted to observation, monitoring or production well.
- H. "Well" shall mean all water wells as defined in Section 13710 of the California Water Code, including community water supply wells, individual domestic wells, industrial wells, agricultural wells, recharge or injection wells, air-conditioning wells, cathodic protection wells, observation wells and monitoring wells.
- I. "Director" shall mean the city engineer of the city of Merced.

(Ord. 2017 § 2, 1999; Ord. 1754 § 1, 1990).

Article III. - Permit Procedures

8.12.200 - Application.

- A. Permits required by this chapter shall be subject to conditions set forth in this chapter or as required by law.
- B. No person shall construct, rehabilitate, seal, modify, or destroy a test well, exploratory hole, cathodic protection well, monitoring well, or contaminant extraction well in the city unless a written permit has been obtained from the department of public works. No person shall seal, modify, or destroy a private well in the city unless a written permit has been obtained from the department of public works.
- C. Applications for permits shall be made by filling out a well permit form and filing same with the department of public works. Complete drawings and specifications for any proposed work shall accompany the well permit and shall be of sufficient detail to demonstrate compliance with all standards.
- D. A permit to construct, rehabilitate, seal, or modify a test well, exploratory hole, cathodic protection well, monitoring well, or contaminant extraction well may be denied by the director if such activities will cause or threaten to cause the spread of pollution which adversely impacts the quality of the ground water.
- E. Any person who commences any work for which a permit is required by this chapter without having obtained a permit shall be required, if subsequently granted a permit for this work, to pay double the standard permit fee.

(Ord. 2285 § 2, 2007; Ord. 1754 § 1, 1990).

8.12.210 - Fees.

The following fee schedule shown in Table 1 is established to cover the administrative costs of issuing a permit. Costs for plan checking and inspection will be based on hourly rates set by the director with the intent of recovering the full cost of such work.

Table 1
Schedule of Filing Fees

New well or test well permit	At cost (\$75.00 min.)
Rehabilitation and modification permit	At cost (\$50.00 min.)
Test well permit	At cost (\$75.00 min.)
Destruction of well permit	No cost

8.12.220 - Inspections.

- A. A well site and surrounding property must be inspected by the director or his designee: (1) before the construction, rehabilitation or destruction of any well, test well or exploratory hole; (2) while the annular seal is being constructed; (3) during the placement of grout while a well is being destroyed; and (4) at any time during the work authorized under a permit issued pursuant to this chapter to insure that compliance with the permit and all applicable standards are met.
- B. Upon completion of the work authorized by a permit and before the well is placed in service, or upon destruction of a well or test hole, the director or his designee must make an inspection and approve the work.
- C. A permittee or the drilling contractor must make a request for an inspection at least twenty-four hours (one full regular city work day) before the time any inspection is needed.

(Ord. 1754 § 1, 1990).

8.12.230 - Terms of the permit.

- A. Work authorized by a permit pursuant to this chapter shall begin within ninety days from the date of issuance. The permit authorizes work for a period of one year from the date of issuance or as otherwise stated on the permit.
- B. If work has not begun within ninety days or completed within one year, or within the time interval specified on the permit, from the date of issuance, the permit shall be void. A sixty-day extension of the permit may be granted by the director upon written request from the permittee. Upon the expiration of the extension, no further work shall be permitted unless and until a new permit is issued.
- C. It shall be the responsibility of the drilling contractor to file the permit and ensure that a copy of the permit is posted at the work site.
- D. The contractor or owner shall notify the director at least twenty-four hours prior to the commencement of work.

(Ord. 1754 § 1, 1990).

8.12.240 - Liability.

As a condition of all permits, the permittee shall assume all liability imposed by law for personal injury or property damage resulting from any work performed by the permittee or his agent under a permit, or resulting from the failure of the permittee to perform his obligation under a permit. If any claim of such liability is made against the city, its officers, employees, or agents, the permittee shall defend, indemnify and hold them, and each of them, harmless from such claims,

(Ord. 1754 § 1, 1990).

8.12.250 - Enforcement.

- A. If a well, test well, or exploratory hole subject to this chapter is found to be a public nuisance because of construction, operation, or maintenance in a manner contrary to the terms of this chapter, or a permit issued pursuant to this chapter, the director shall give a written

notice of violation to the owner of the land and to the permittee.

- B. The notice of violation shall state the nature of the violation, the corrective measures to be taken, and a reasonable time within which such corrections must be made.
- C. The notice of violation shall include a statement to the land owner, well owner, or permittee that upon failure to make the required corrections within the period specified, the director may abate the condition at the expense of the landowner, well owner or permittee.
- D. If the director finds that a well, test well, or exploratory hole subject to this chapter is by reason of location, construction, operation, or maintenance causing significant irreparable damage to the ground water or presents an immediate danger to health and safety, or that it is impractical to notify the owner or permit-tee, the director may perform, or order performed, emergency work necessary to abate the condition without giving notice as required above. The owner or permittee shall be liable for the costs of abatement.
- E. The director may record a notice of violation with the office of the county recorder,

(Ord. 1754 § 1, 1990).

8.12.260 - Review of permits and inspections.

- A. Any person aggrieved by the refusal to issue a permit, the terms of the permit, or any decision made by the inspector may, upon written request submitted within ten days of any such denial, conditional granting, or other decision, have the matter reviewed by the director.
- B. Upon receipt of written request for review, the director shall schedule the matter for review within three weeks and give the applicant at least ten days written notice of the time and place of the review, unless the applicant agrees to a lesser time.
- C. The director will notify the person requesting the review in writing of his decision within two weeks of the review.

(Ord. 1754 § 1, 1990).

8.12.270 - Violations.

Any person in violation of the provisions of this chapter shall be guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine not to exceed one thousand dollars or by imprisonment in the county jail of Merced County for a period not exceeding one year, or by both such fine and imprisonment.

(Ord. 1754 § 1, 1990).

Article IV. - Well Construction Standards

8.12.300 - General standards.

- A. Except as may be specified in this chapter, the standards for the location, construction, sealing, maintenance, rehabilitation, modification, abandonment, or destruction of wells, exploratory holes, and test wells shall be those published in Chapter ii and Appendixes B, C, and D of the "State Water Well Standards" (DWR Bulletin 74-81 as revised in 1988 or the latest revision), Chapter II of the "Monitoring Well Standards" (DWR Bulletin 74-88 or the latest revision), and Chapter II of the "Cathodic Protection Well Standards" (DWR Bulletin 74-1 as revised in 1988 or the latest revision).
- B. Well Integrity.
 - 1. All wells, exploratory holes and test wells shall be constructed to prevent the entrance of surface water or foreign material from any source into the well, hole or aquifer.
 - 2. All wells shall be located, constructed, maintained, rehabilitated, modified, abandoned or destroyed so the quality of the ground water is not degraded.
 - 3. Drainage wells which are used for dewatering agricultural areas which discharge only to irrigation facilities are exempt from the sealing requirements, except when they penetrate the Corcoran Clay or cause or threaten to cause the spread of pollution. Surface protection and safety from hazard standards shall be provided.
 - 4. Construction of a well in a pit is prohibited except for agricultural dewatering wells which discharge only to irrigation facilities.
 - 5. In special situations where pollution or contamination of ground water is known, the city may modify these standards or otherwise prescribe special requirements to ensure the quality of the ground water, and the health and safety of the people. If, in the opinion of the director, special conditions or construction will not adequately safeguard the quality of the environment or the health or safety of the public, then the director shall deny such a permit.

(Ord. 1754 § 1, 1990).

8.12.310 - Well location.

- A. Wells shall be located an adequate distance from known or potential sources of pollution to prevent degradation of water quality.
- B. No wells shall be located within fifteen feet of a property line.
- C. Separation between a drinking water well and any well which has no upper annular seal or sanitary seal shall be at least three hundred feet.
- D. No well shall be located closer to a potential source of pollution than the distance listed below in Table 2. When, in the opinion of the director, adverse conditions or unusual sources of pollution exist which may cause degradation of water quality, distances prescribed in Table 2 may be extended by the director.

Table 2
Distance Between A Well and Potential Sources of Pollution

Source	Minimum Distance
Sewer	50 feet
Watertight septic tank or subsurface sewage leaching field	100 feet
Cesspool or seepage pit	150 feet
Animal or fowl enclosure	100 feet
Hazardous waste/materials storage	500 feet

- E. Exemptions from Table 2 may be granted by the director for monitoring wells and cathodic protection wells.

(Ord. 1754 § 1, 1990).

8.12.320 - Well construction standards.

A. Well Sealing.

1. Sealing conditions and procedures prescribed in Sections 9 and 13 of DWR Bulletin 74-81 as revised in 1988 or the latest revision, Section 11 of DWR Bulletin 74-88, and Sections 10 and 11 of DWR 74-81 as reviewed in 1988 or the latest revisions, are considered standards for this chapter, except as provided below.
2. A well shall be sealed with a sealing material in a manner that prevents bridging, dilution, or segregation of the grout which would prevent the material from completely filling the annular space. The suggested methods for sealing given in Appendix B of DWR Bulletin 74-8 1 are the minimum standards for this chapter. Other methods of sealing the annular space may be approved upon review by the director after reviewing a written request by the owner for an alternative method.
3. Sealing material shall be of a composition equivalent to those given in Section 9 of DWR Bulletin 74-8 1 as reviewed in 1988, or the latest revisions and Section 11 of DWR Bulletin 74-88 or the latest revisions.
4. Wells shall be constructed so the annular space is effectively sealed at the surface to protect against contamination or pollution by entrance of surface or shallow subsurface waters. At a minimum, new wells shall be sealed from the surface in accordance with the following Table 3.

Table 3
Minimum Depth of Surface Seal

Domestic well	50 feet
Industrial well	50 feet
Agricultural well	50 feet

Monitoring wells	50 feet or to top of the filter pack if shallower than 50 feet
Cathodic protection wells	50 feet
Grave yard or cemetery	150 feet

5. Wells which penetrate the Corcoran Clay shall be constructed in a manner to prevent production or mixing of waters from above and below the Corcoran Clay.
6. Annular seal shall extend from the surface to a depth of at least three hundred feet for new wells producing water from a depth below three hundred feet.
7. Where a well penetrates more than one aquifer and mixing of aquifer waters in sufficient quantities will cause significant deterioration of the quality of water in one or more aquifers, then the strata producing the poor quality water shall be sealed off. New wells shall not be allowed to tap two or more separate and distinct producing zones (aquifer systems).
8. If any existing well producing water from both the intermediate aquifer and the Mehrten aquifer is found to be contaminated, it shall be modified to seal off the contaminated zones and to prevent mixing between aquifers or shall be destroyed.
9. When special conditions exist, such as known pollution, the director may prescribe additional sealing standards to prevent the migration of pollution.

B. Casing Materials.

1. All new and rehabilitated wells shall be constructed with casing materials which have sufficient strength and durability to resist the forces imposed on it during installation, including grouting and development, and which will provide structural integrity against forces which can normally be expected after installation. No thermoset or thermoplastic casing greater than eight inches in nominal diameter will be allowed below a depth of three hundred feet.
2. Casing material and thickness of material shall be selected in accordance with good design practices. Materials selected for the well casing shall be of a strength and durability that meets the specifications prescribed in Section 12 of Chapter II of DWR Bulletin 74-81 as revised in 1988 or the latest revision, or Section 9 of Chapter II of DWR Bulletin 74-88 or the latest revision.

C. Surface Construction.

1. All pumping equipment shall be installed with protective devices to effectively prevent entrance of foreign matter or back siphonage into the well casing. A properly designed air gap may be considered an acceptable protective device for agricultural wells.
2. A concrete slab or base shall be constructed around the top of all water wells. The top of the floor slab shall be sloped away from the casing. The floor slab shall be a minimum of six inches thick with the outer edge of the slab at least four inches above and at least two inches below the ground surface. The surface slab shall be tied to the well's annular surface seal.
3. All wells furnishing water for human consumption shall have a greaseless petcock valve with the spout facing down located on the discharge line before the storage tank for obtaining water quality samples.
4. Any well terminating above the ground surface in areas where vehicular traffic can occur must be identified and protected such that the well can easily be seen and protected from damage.
5. Where the top of a monitoring or cathodic protection well must be below the ground surface, a concrete or other water tight vault must be installed. The vault and its lid must be strong enough to support vehicular traffic. The top of the vault should be set so drainage is away from the vault. The well must be capped with a leakproof cap so water in the vault will not enter the well. The vault cover or lid must be leakproof.

D. Well Development.

1. Development or redevelopment of a well shall be done in a manner which will not cause damage to the well or cause adverse subsurface conditions that may destroy barriers to vertical movement of water,
2. Developing or redeveloping of a well by using explosives is prohibited unless a special variance is granted by the director.
3. Developing or redeveloping of a monitoring well shall be done in a manner which does not interfere with the analytical results of water quality sampling. In areas of known ground water pollution, development fluids shall be handled, stored and disposed of in accordance with all applicable state and county department of health standards and procedures.

E. Well Disinfection.

1. All well and associated equipment furnishing or in contact with potable water for domestic use shall be disinfected after construction, installation or repair of the well, pump or storage equipment and before use of the water or return of the well to operation.

2. Suggested methods for disinfection given in Appendix C of DWR Bulletin 74-8 1 as revised in 1988 or the latest revision are required.

F. Water Sampling.

1. Before, and then annually thereafter, a new or rehabilitated well for domestic use is placed into service, samples shall be collected and analyzed for chemical and bacteriological constituents and the results filed with the director. The director shall specify which chemical and bacteriological constituents are to be sampled and analyzed and specify the method of analysis, At a minimum all such wells shall meet state standards for large systems as defined by the California Code of Regulations, Title 22, as amended.
2. Samples for water quality analyses shall be collected from the discharge line before the storage tank.
3. Water samples shall be collected by persons trained and knowledgeable in the sampling procedures and chain-of-custody requirement for the constituents being analyzed.
4. Analysis of water samples shall be performed by a laboratory which is certified by the State Department of Health to perform the method of analysis specified by the director.

(Ord. 1754 § 1, 1990).

8.12.330 - Well abandonment and destruction.

- A. All abandoned wells, exploration holes or test wells, as defined by DWR Bulletin 74-81 as revised in 1988 or the latest revision, shall be destroyed in such a manner that they will not produce water or act as a conduit for mixing or otherwise transferring of water between permeable zones or aquifers, and will not be a hazard to the safety and well being of people or animals.
- B. Materials used to fill a well shall have a low permeability. Materials shall meet the material standards prescribed in DWR Bulletin 74-81 as revised in 1988, and DWR Bulletin 74-88 or the latest revision.
- C. Wells penetrating the Corcoran Clay shall be destroyed in a manner that ensures a seal is placed across the Corcoran Clay. If necessary, the casing shall be perforated for an interval of not less than ten feet and sealing material forced under pressure into the annular space.
- D. Wells penetrating deeper than three hundred feet shall be destroyed in a manner that ensures a seal is placed across the three hundred foot clay. If necessary, the casing shall be perforated for an interval of not less than ten feet and sealing material forced under pressure into the annular space.
- E. Wells without an upper annular seal equal to or greater than that set forth in Table 3 shall perforate the casing at a depth equal to Table 3 and inject sealing material under pressure into the annular space.
- F. In areas where ground water pollution is known, the director may prescribe special methods for well destruction to prevent the migration of pollutants.
- G. Any well, exploratory hole or test hole which is abandoned, out of service, or otherwise left unattended shall have a temporary cover over the well or hold opening which prevents the introduction of undesirable material into the well or hole, and ensures public safety. The cover shall be secured in such a manner that it cannot be removed except with the aid of equipment or through the use of tools.
- H. The owner or permittee of any well, exploratory hole or test hole which is abandoned, out of service, or otherwise left unattended for a period greater than ninety days shall file with the director a letter of intent which provides the reason(s) for not properly destroying the well, exploratory hole or test hole as required by this chapter and which specifies the time when the well, exploratory hole, or test hole will be completed, put back in service, or destroyed as required in this chapter.

(Ord. 1754 § 1, 1990).